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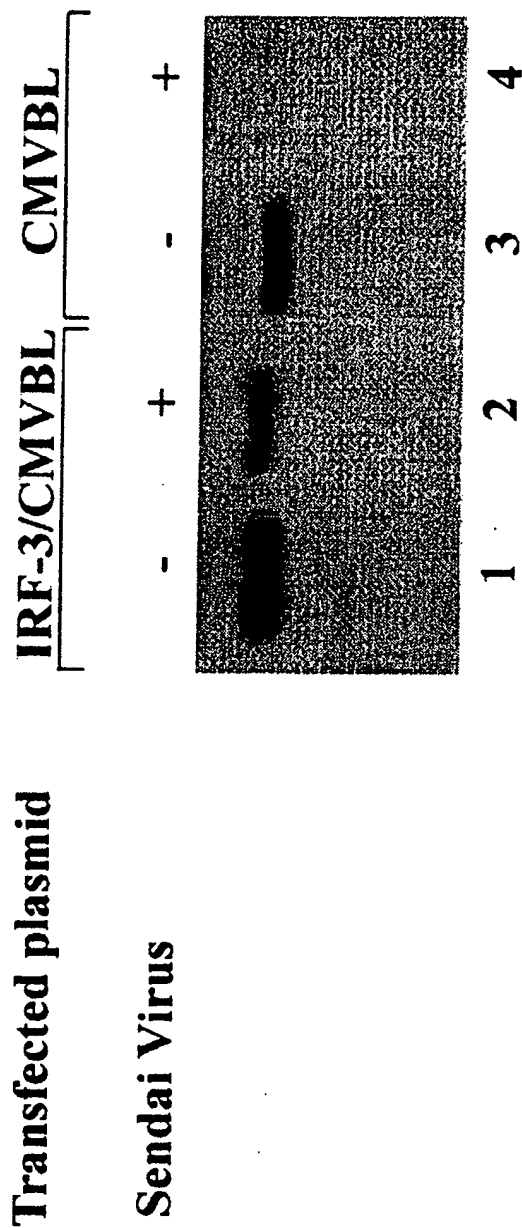


FIG. 1

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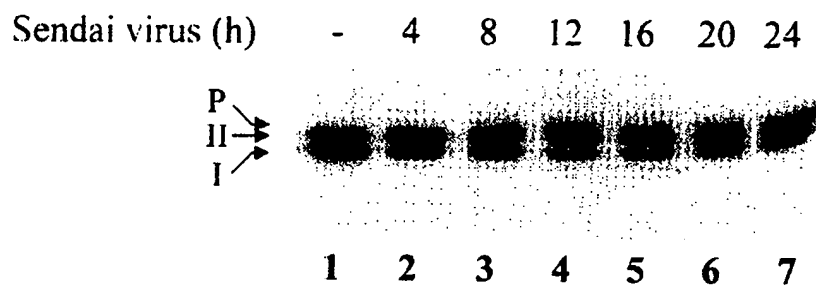


FIG. 2A

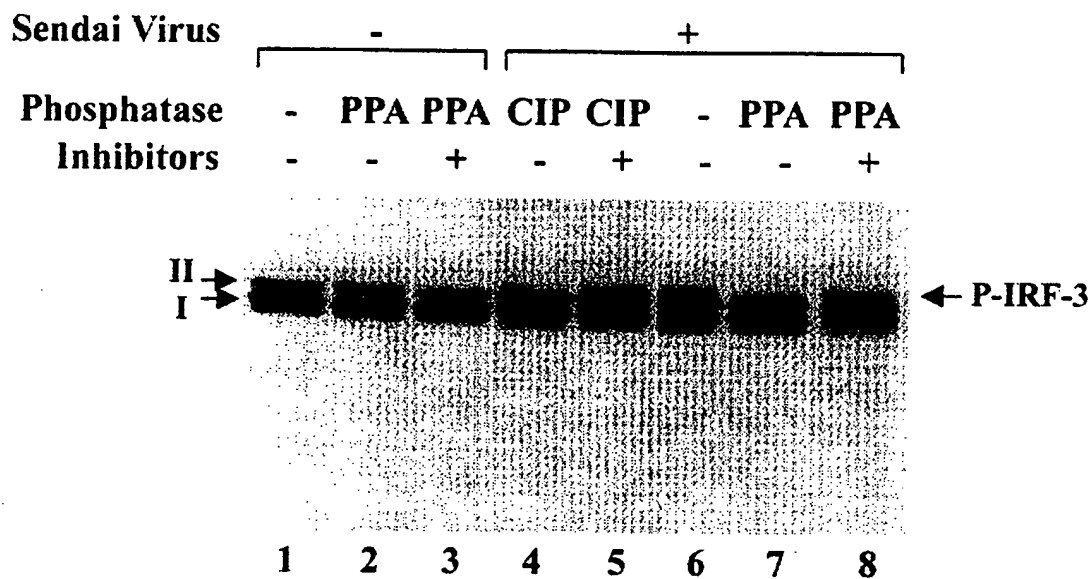


FIG. 2B

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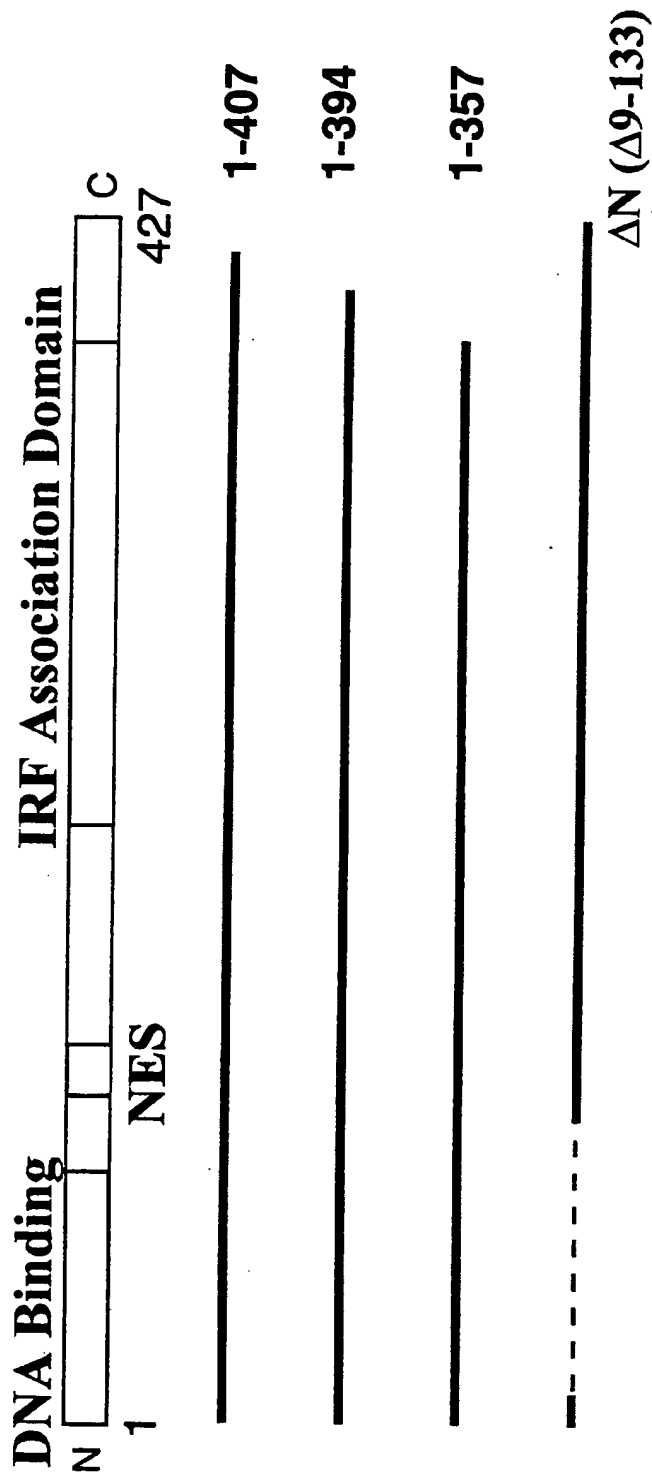


FIG. 3A

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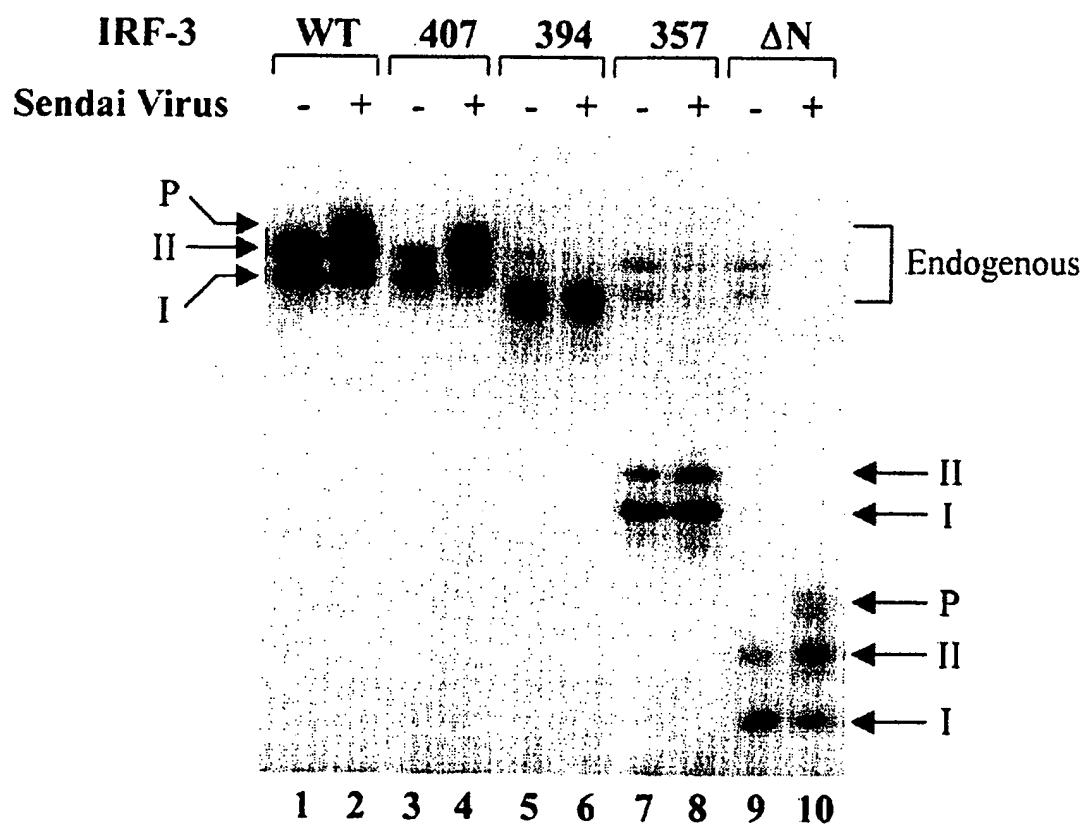
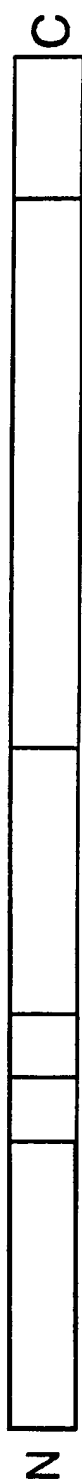


FIG. 3B

# DNA Binding NES IRF Association Domain



1 427

141 - ILDELLG - 147

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382 - GGASSLENTVDLHISNSHPLSLTSDQYKAYLQD - 414

J2A

2A

3A

(385/386)

(396/398) (402/404/405)

5A

5D

FIG. 4A

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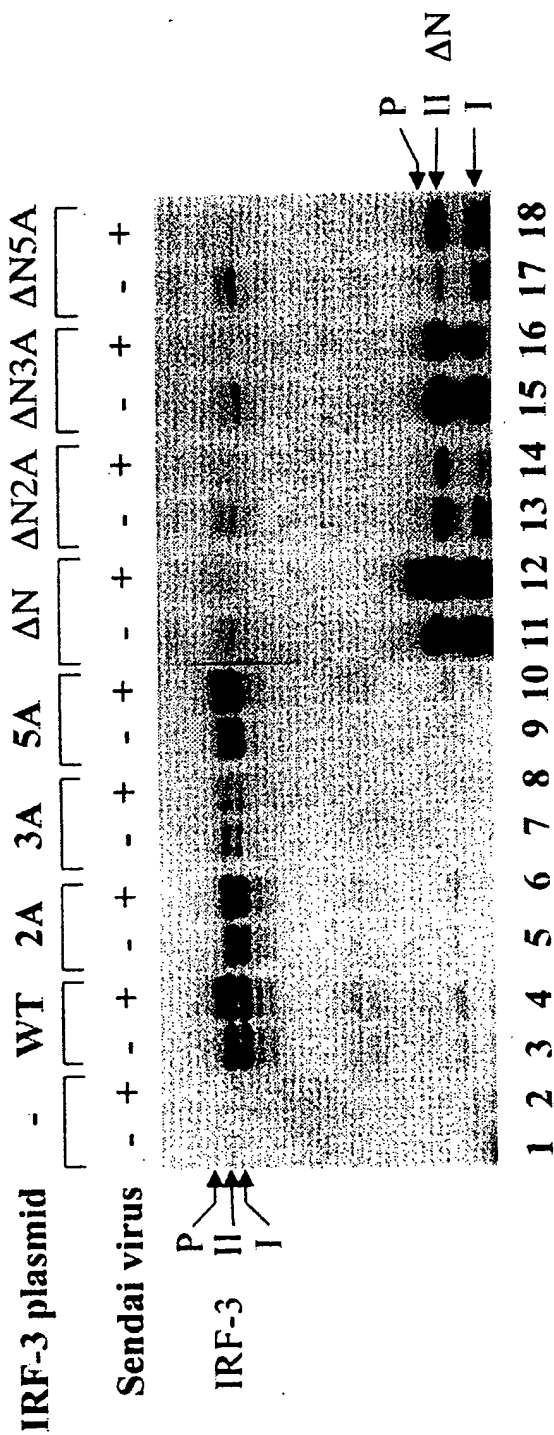


FIG. 4B

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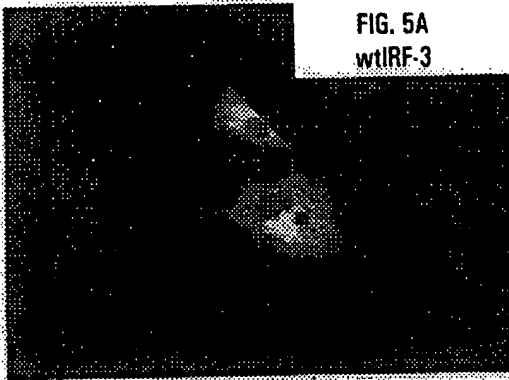


FIG. 5A  
wtIRF-3

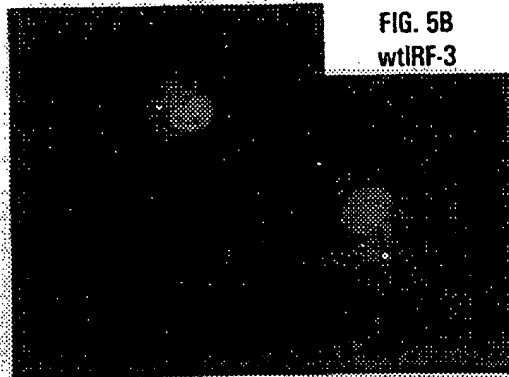


FIG. 5B  
wtIRF-3

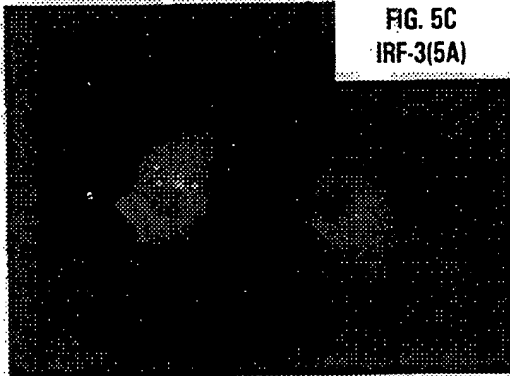


FIG. 5C  
IRF-3(5A)

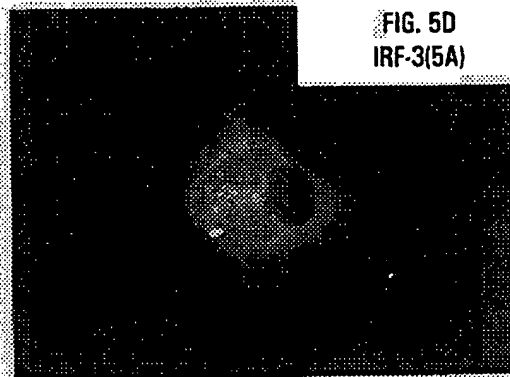


FIG. 5D  
IRF-3(5A)

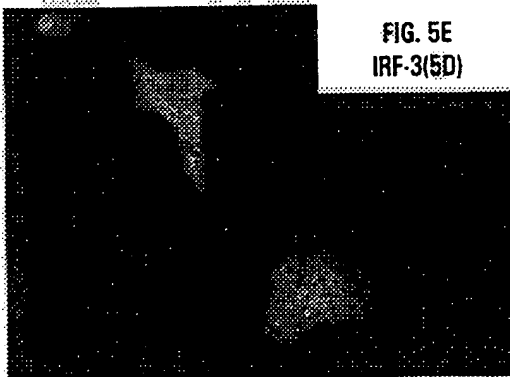


FIG. 5E  
IRF-3(5D)



FIG. 5F  
IRF-3(5D)



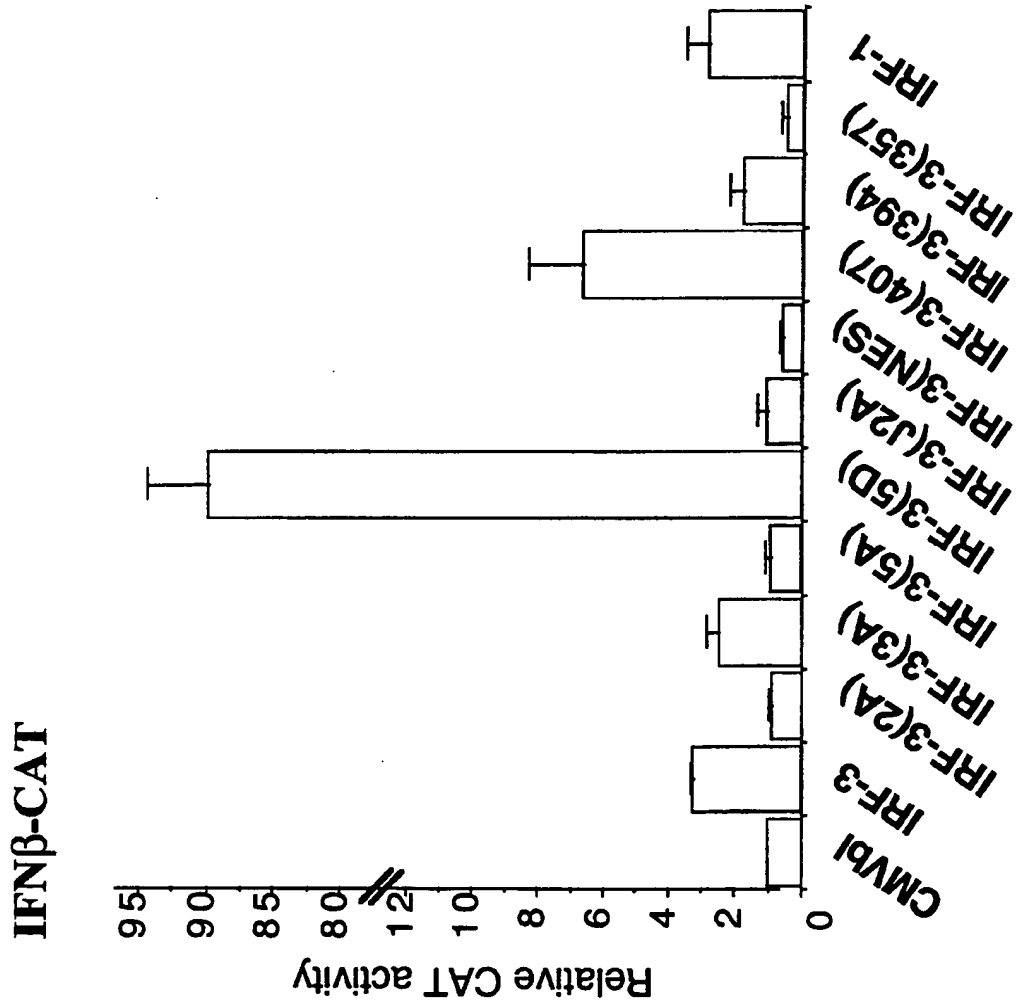
FIG. 5G  
IRF-3(NES)



FIG. 5H  
IRF-3(NES)

FIG. 5A-5H

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**FIG. 6A**

FIG. 6A: 59627560



FIG. 6B

IFN $\beta$ -CAT

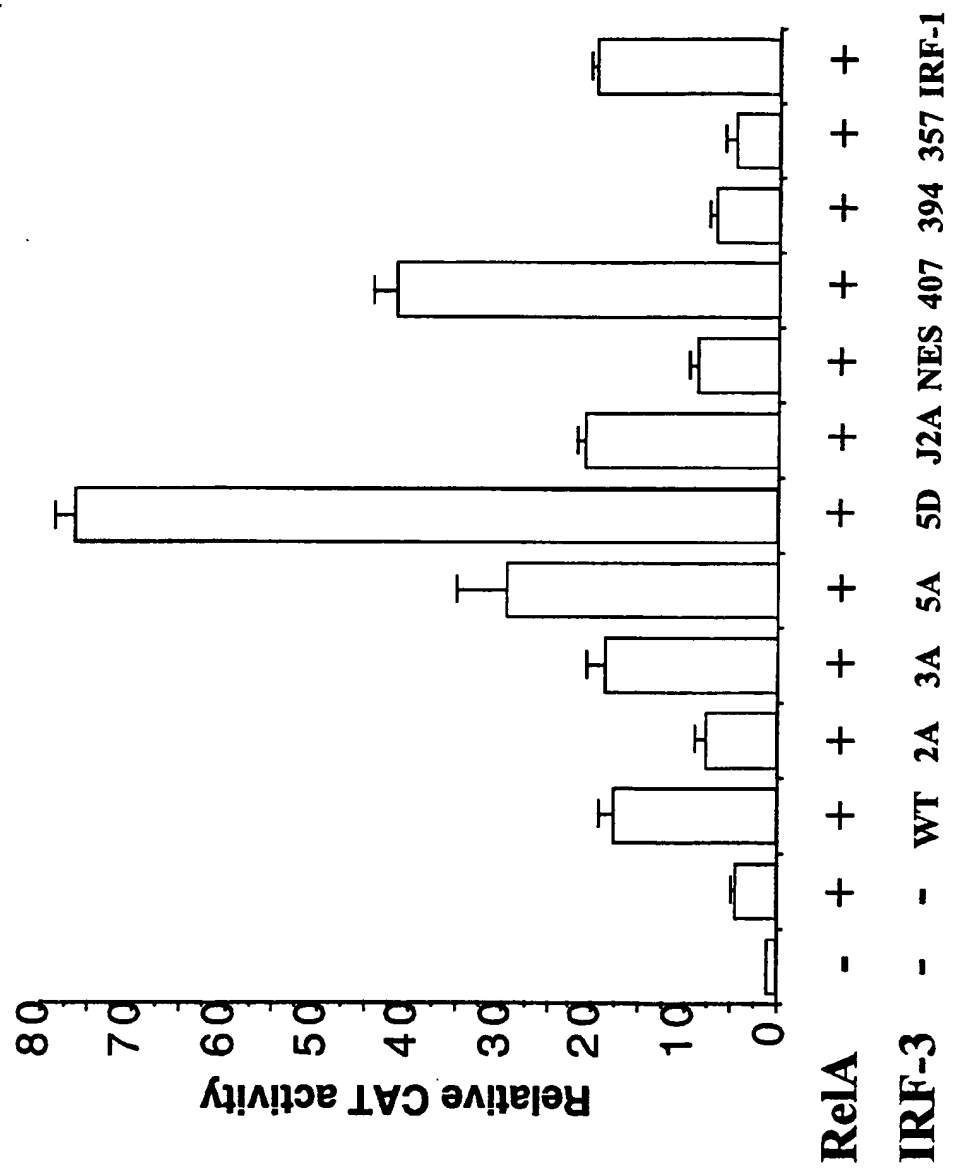


FIG. 6B

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# ISG15-CAT

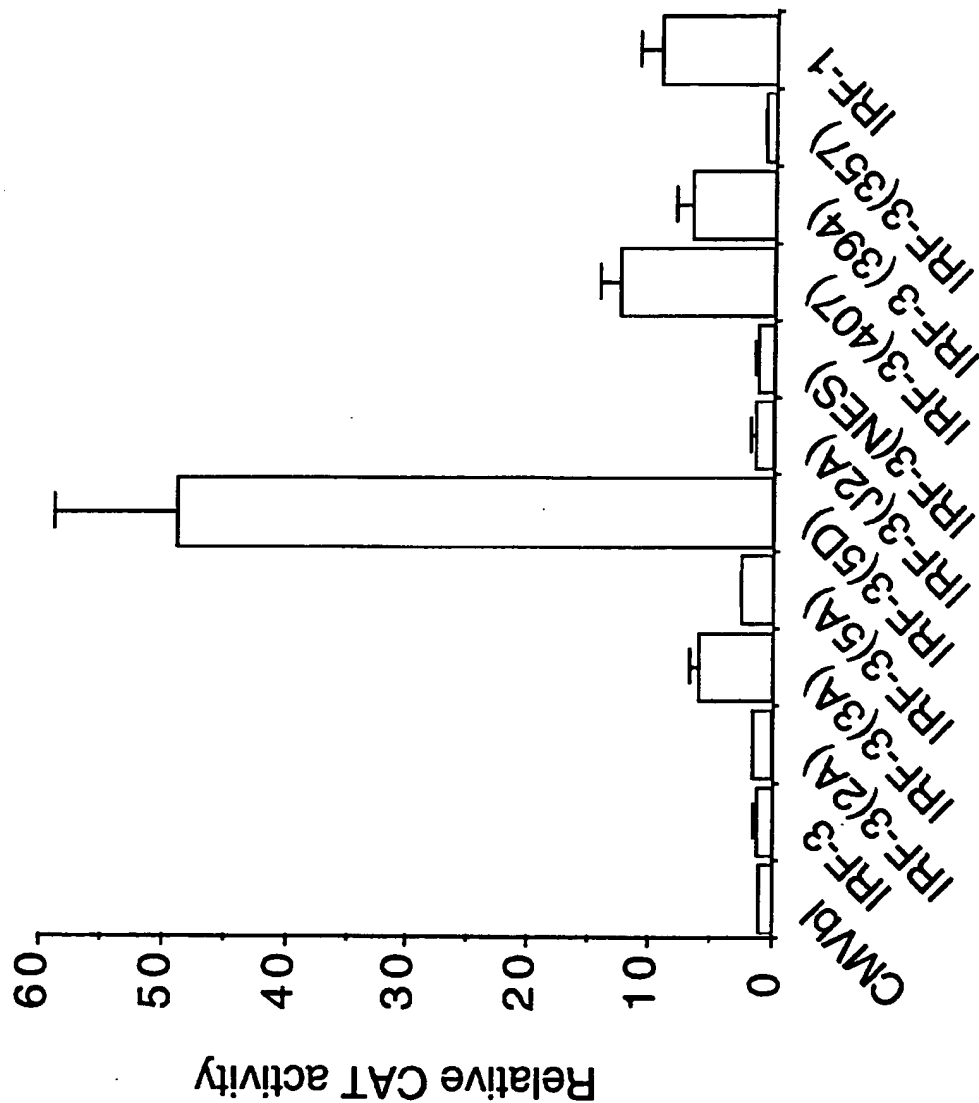


FIG. 6C

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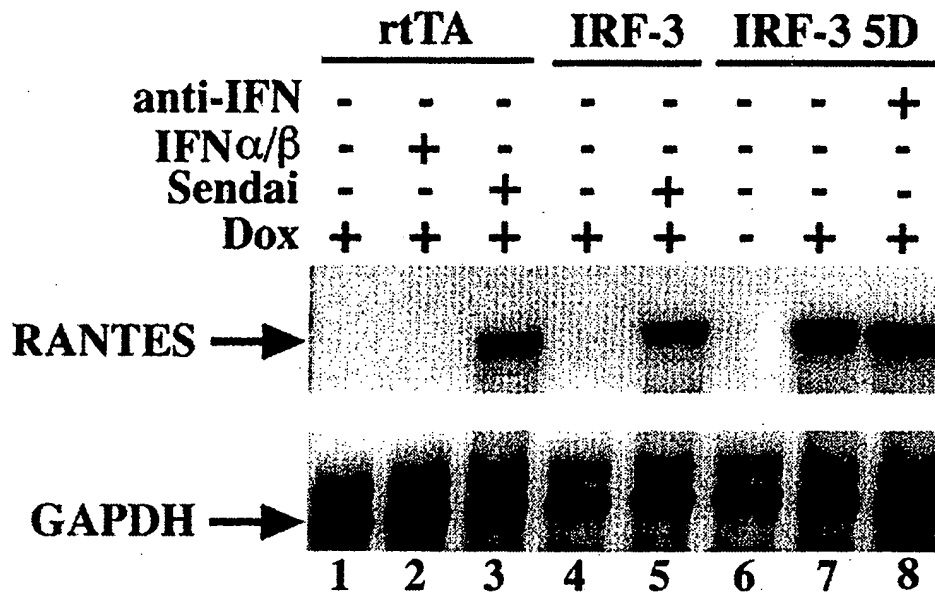


FIG. 7A

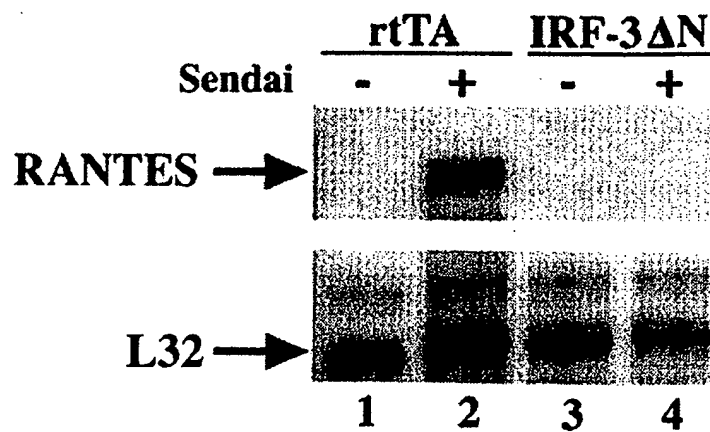


FIG. 7B

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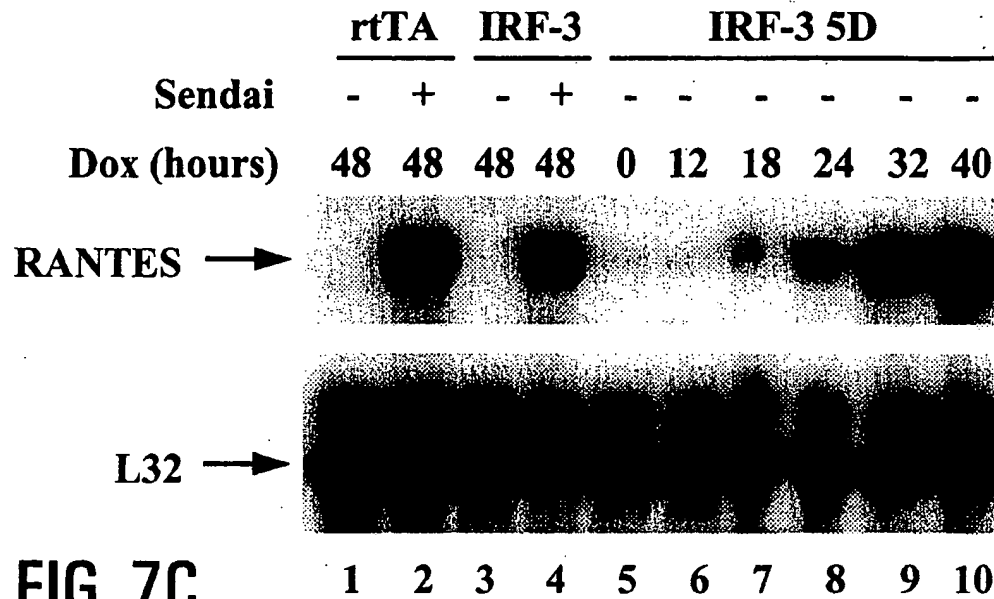


FIG. 7C

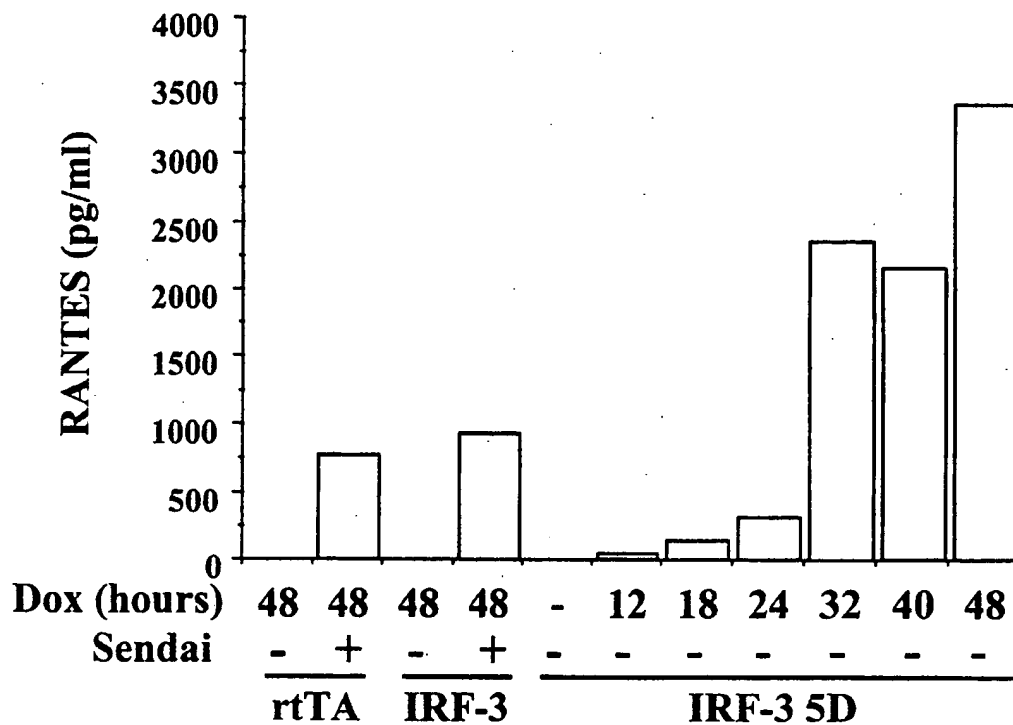
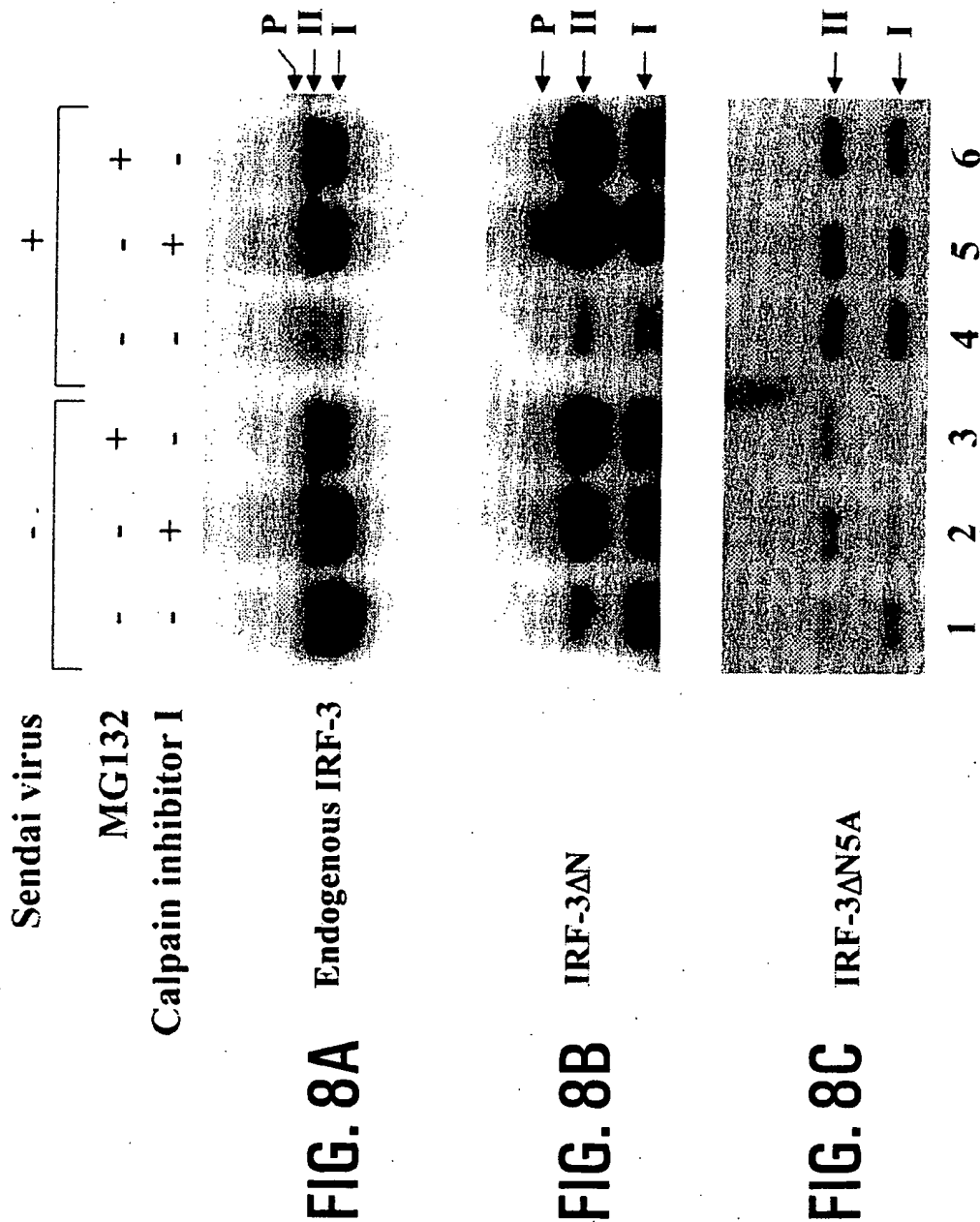


FIG. 7D

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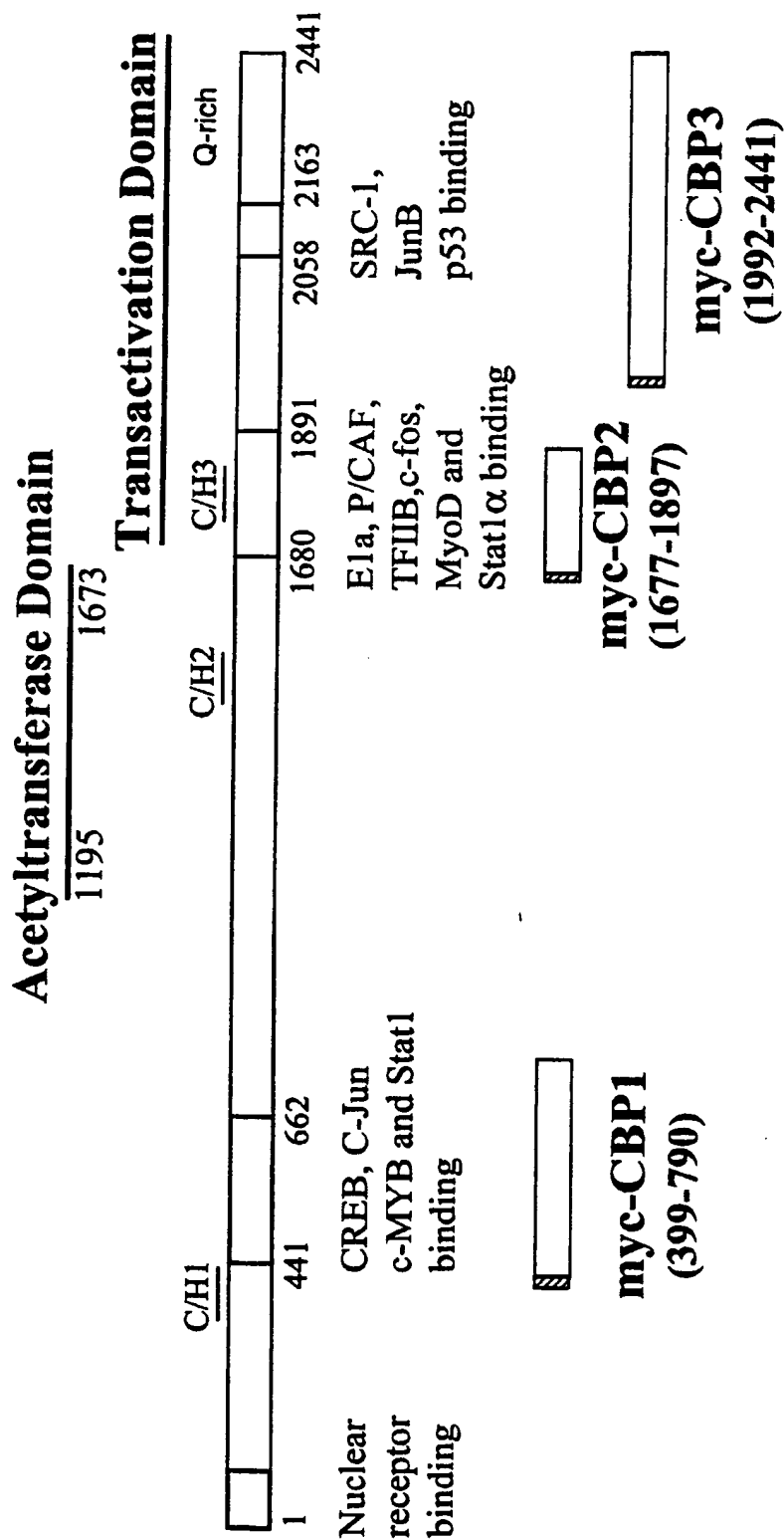


FIG. 9A

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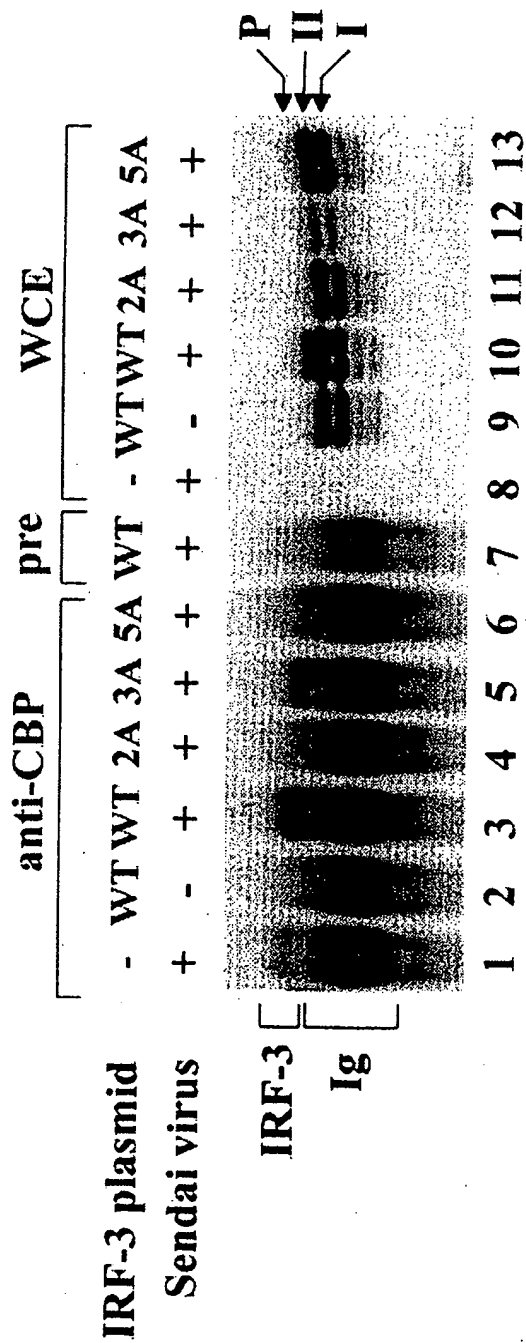
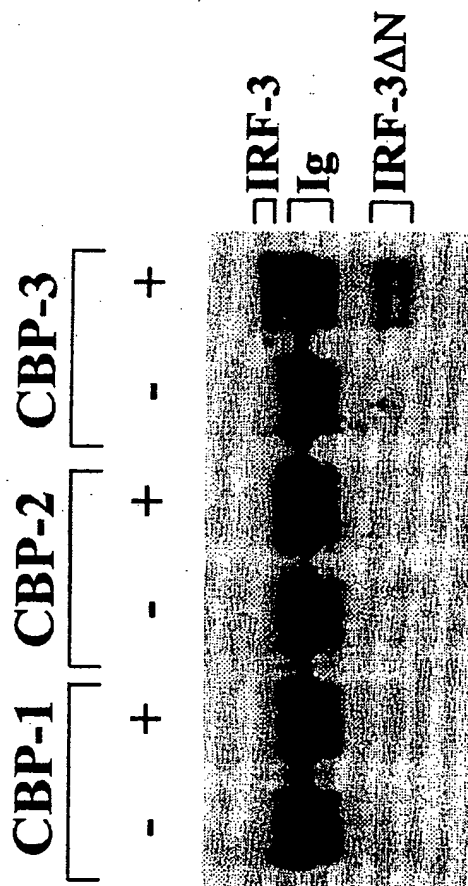
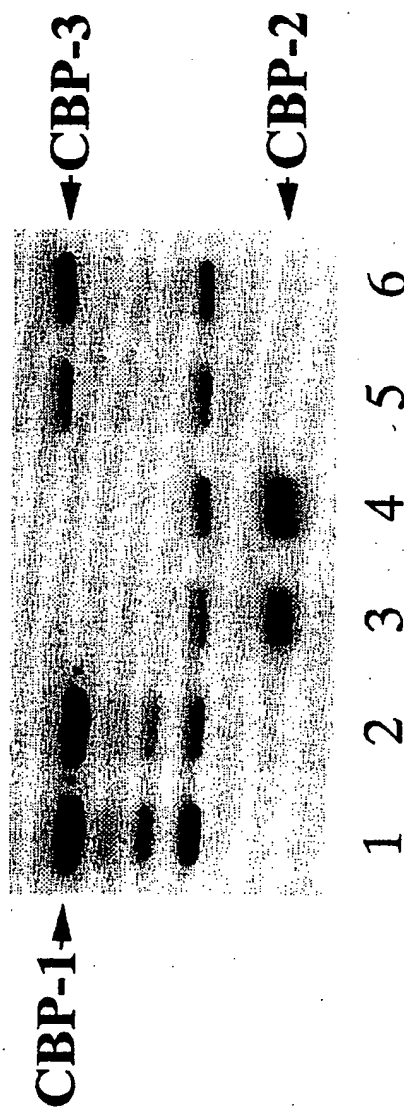


FIG. 9B



Sendai virus

FIG. 9C



CBP-1

CBP-3

CBP-2

FIG. 9D



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```

      10      20      30      40
      *      *      *      *
ATG GGA ACC CCA AAG CCA CGG ATC CTG CCC TGG CTG GTG TCG CAG CTG
TAC CCT TGG GGT TTC GGT GCC TAG GAC GGG ACC GAC CAC AGC GTC GAC
  M   G   T   P   K   P   R   I   L   P   W   L   V   S   Q   L>

50      60      70      80      90
  *      *      *      *      *
GAC CTG GGG CAA CTG GAG GGC GTG GCC TGG GTG AAC AAG AGC CGC ACG
CTG GAC CCC GTT GAC CTC CCG CAC CGG ACC CAC TTG TTC TCG GCG TGC
  D   L   G   Q   L   E   G   V   A   W   V   N   K   S   R   T>

100     110     120     130     140
  *      *      *      *      *
CGC TTC CGC ATC CCT TGG AAG CAC GGC CTA CGG CAG GAT GCA CAG CAG
GCG AAG GCG TAG GGA ACC TTC GTG CCG GAT GCC GTC CTA CGT GTC GTC
  R   F   R   I   P   W   K   H   G   L   R   Q   D   A   Q   Q>

150     160     170     180     190
  *      *      *      *      *
GAG GAT TTC GGA ATC TTC CAG GCC TGG GCC GAG GCC ACT GGT GCA TAT
CTC CTA AAG CCT TAG AAG GTC CGG ACC CGG CTC CGG TGA CCA CGT ATA
  E   D   F   G   I   F   Q   A   W   A   E   A   T   G   A   Y>

200     210     220     230     240
  *      *      *      *      *
GTT CCC GGG AGG GAT AAG CCA GAC CTG CCA ACC TGG AAG AGG AAT TTC
CAA GGG CCC TCC CTA TTC GGT CTG GAC GGT TGG ACC TTC TCC TTA AAG
  V   P   G   R   D   K   P   D   L   P   T   W   K   R   N   F>

250     260     270     280
  *      *      *      *
CGC TCT GCC CTC AAC CGC AAA GAA GGG TTG CGT TTA GCA GAG GAC CGG
GCG AGA CGG GAG TTG GCG TTT CTT CCC AAC GCA AAT CGT CTC CTG GCC
  R   S   A   L   N   R   K   E   G   L   R   L   A   E   D   R>

290     300     310     320     330
  *      *      *      *      *
AGC AAG GAC CCT CAC GAC CCA CAT AAA ATC TAC GAG TTT GTG AAC TCA
TCG TTC CTG GGA GTG CTG GGT GTA TTT TAG ATG CTC AAA CAC TTG AGT
  S   K   D   P   H   D   P   H   K   I   Y   E   F   V   N   S>

340     350     360     370     380
  *      *      *      *      *
GGA GTT GGG GAC TTT TCC CAG CCA GAC ACC TCT CCG GAC ACC AAT GGT
CCT CAA CCC CTG AAA AGG GTC GGT CTG TGG AGA GGC CTG TGG TTA CCA
  G   V   G   D   F   S   Q   P   D   T   S   P   D   T   N   G>

390     400     410     420     430
  *      *      *      *      *
GGA GGC AGT ACT TCT GAT ACC CAG GAA GAC ATT CTG GAT GAG TTA CTG
CCT CCG TCA TGA AGA CTA TGG GTC CTT CTG TAA GAC CTA CTC AAT GAC
  G   G   S   T   S   D   T   Q   E   D   I   L   D   E   L   L>

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FIG. 10

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FIG. 10  
CONTINUED

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          920          930          940          950          960
          *          *          *          *          *
CAT GGG CCT GAT GGC GAG GTC CCC AAG GAC AAG GAA GGA GGC GTG TTT
GTA CCC GGA CTA CCG CTC CAG GGG TTC CTG TTC CTT CCT CCG CAC AAA
H   G   P   D   G   E   V   P   K   D   K   E   G   G   V   F>

          970          980          990          1000
          *          *          *          *
GAC CTG GGG CCC TTC ATT GTA GAT CTG ATT ACC TTC ACG GAA GGA AGC
CTG GAC CCC GGG AAG TAA CAT CTA GAC TAA TGG AAG TGC CTT CCT TCG
D   L   G   P   F   I   V   D   L   I   T   F   T   E   G   S>

1010          1020          1030          1040          1050
*          *          *          *          *
GGA CGC TCA CCA CGC TAT GCC CTC TGG TTC TGT GTG GGG GAG TCA TGG
CCT GCG AGT GGT GCG ATA CGG GAG ACC AAG ACA CAC CCC CTC AGT ACC
G   R   S   P   R   Y   A   L   W   F   C   V   G   E   S   W>

1060          1070          1080          1090          1100
*          *          *          *          *
CCC CAG GAC CAG CCG TGG ACC AAG AGG CTC GTG ATG GTC AAG GTT GTG
GGG GTC CTG GTC GGC ACC TGG TTC TCC GAG CAC TAC CAG TTC CAA CAC
P   Q   D   Q   P   W   T   K   R   L   V   M   V   K   V   V>

1110          1120          1130          1140          1150
*          *          *          *          *
CCC ACG TGC CTC AGG GCC TTG GTA GAA ATG GCC CGG GTA GGG GGT GCC
GGG TGC ACG GAG TCC CGG AAC CAT CTT TAC CGG GCC CAT CCC CCA CGG
P   T   C   L   R   A   L   V   E   M   A   R   V   G   G   A>

1160          1170          1180          1190          1200
*          *          *          *          *
TCC TCC CTG GAG AAT ACT GTG GAC CTG CAC ATT GAC AAC GAC CAC CCA
AGG AGG GAC CTC TTA TGA CAC CTG GAC GTG TAA CTG TTG CTG GTG GGT
S   S   L   E   N   T   V   D   L   H   I   D   N   D   H   P>

1210          1220          1230          1240
*          *          *          *
CTC GAC CTC GAC GAC GAC CAG TAC AAG GCC TAC CTG CAG GAC TTG GTG
GAG CTG GAG CTG CTG CTG GTC ATG TTC CGG ATG GAC GTC CTG AAC CAC
L   D   L   D   D   D   Q   Y   K   A   Y   L   Q   D   L   V>

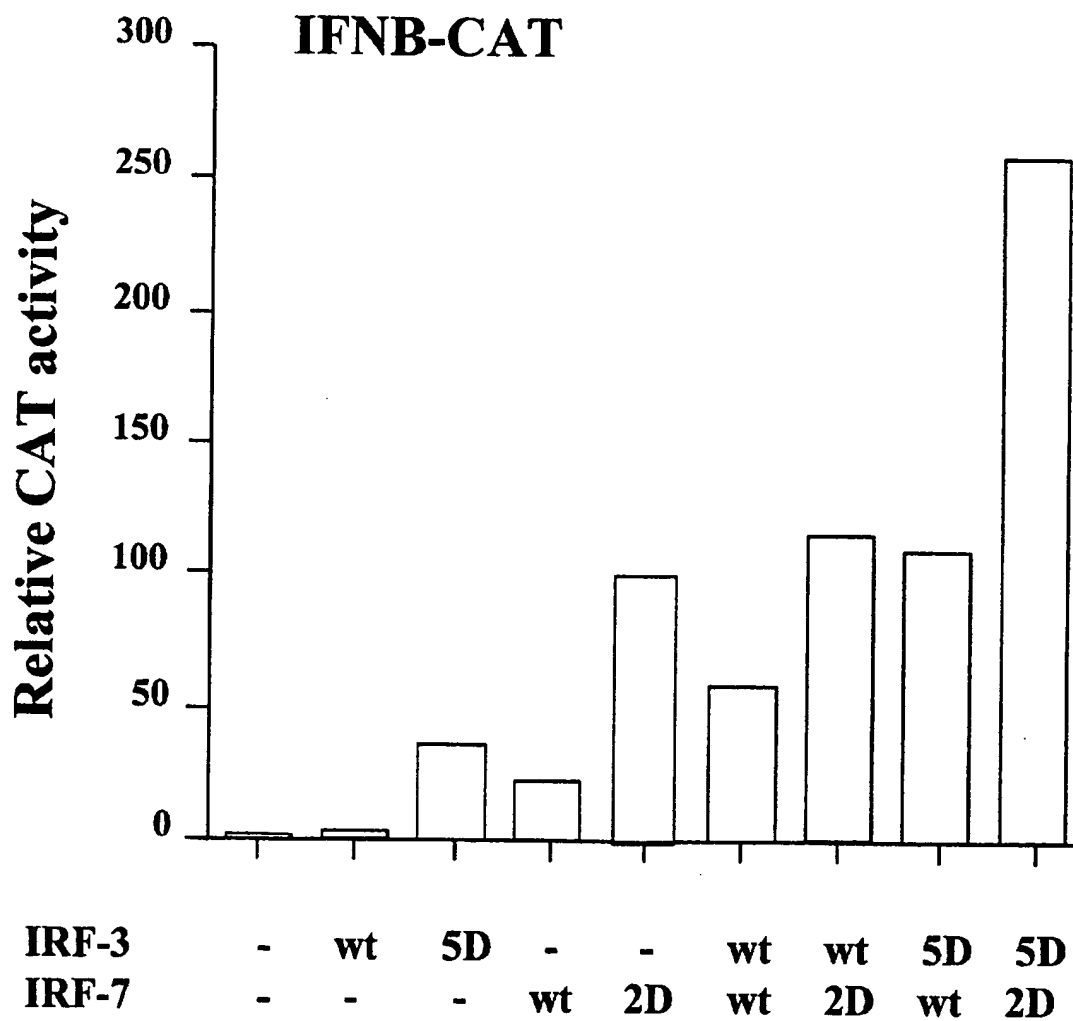
1250          1260          1270          1280
*          *          *          *
GAG GGC ATG GAT TTC CAG GGC CCT GGG GAG AGC TGA
CTC CCG TAC CTA AAG GTC CCG GGA CCC CTC TCG ACT
E   G   M   D   F   Q   G   P   G   E   S>

```

FIG. 10  
CONTINUED

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**FIG. 11**

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```

      10      20      30      40
      *      *      *      *
ATG GCC TTG GCT CCT GAG AGG GCA GCC CCA CGC GTG CTG TTC GGA GAG
TAC CGG AAC CGA GGA CTC TCC CGT CGG GGT GCG CAC GAC AAG CCT CTC
M  A  L  A  P  E  R  A  A  P  R  V  L  F  G  E>

50      60      70      80      90
*      *      *      *      *
TGG CTC CTT GGA GAG ATC AGC AGC GGC TGC TAT GAG GGG CTG CAG TGG
ACC GAG GAA CCT CTC TAG TCG TCG CCG ACG ATA CTC CCC GAC GTC ACC
W  L  L  G  E  I  S  S  G  C  Y  E  G  L  Q  W>

100     110     120     130     140
*      *      *      *      *
CTG GAC GAG GCC CGC ACC TGT TTC CGC GTG CCC TGG AAG CAC TTC GCG
GAC CTG CTC CGG GCG TGG ACA AAG GCG CAC GGG ACC TTC GTG AAG CGC
L  D  E  A  R  T  C  F  R  V  P  W  K  H  F  A>

150     160     170     180     190
*      *      *      *      *
CGC AAG GAC CTG AGC GAG GCC GAC GCG CGC ATC TTC AAG GCC TGG GCT
GCG TTC CTG GAC TCG CTC CGG CTG CGC GCG TAG AAG TTC CGG ACC CGA
R  K  D  L  S  E  A  D  A  R  I  F  K  A  W  A>

200     210     220     230     240
*      *      *      *      *
GTG GCC CGC GGC AGG TGG CCG CCT AGC AGC AGG GGA GGT GGC CCG CCC
CAC CGG GCG CCG TCC ACC GGC GGA TCG TCG TCC CCT CCA CCG GGC GGG
V  A  R  G  R  W  P  P  S  S  R  G  G  G  P  P>

250     260     270     280
*      *      *      *
CCC GAG GCT GAG ACT GCG GAG CGC GCC GGC TGG AAA ACC AAC TTC CGC
GGG CTC CGA CTC TGA CGC CTC GCG CGG CCG ACC TTT TGG TTG AAG GCG
P  E  A  E  T  A  E  R  A  G  W  K  T  N  F  R>

290     300     310     320     330
*      *      *      *      *
TGC GCA CTG CGC AGC ACG CGT CGC TTC GTG ATG CTG CGG GAT AAC TCG
ACG CGT GAC GCG TCG TGC GCA GCG AAG CAC TAC GAC GCC CTA TTG AGC
C  A  L  R  S  T  R  R  F  V  M  L  R  D  N  S>

340     350     360     370     380
*      *      *      *      *
GGG GAC CCG GCC GAC CCG CAC AAG GTG TAC GCG CTC AGC CGG GAG CTG
CCC CTG GGC CGG CTG GGC GTG TTC CAC ATG CGC GAG TCG GCC CTC GAC
G  D  P  A  D  P  H  K  V  Y  A  L  S  R  E  L>

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FIG. 12

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390                      400                      410                      420                      430  
 \*                      \*                      \*                      \*                      \*  
 TGC TGG CGA GAA GGC CCA GGC ACG GAC CAG ACT GAG GCA GAG GCC CCC  
 ACG ACC GCT CTT CCG GGT CCG TGC CTG GTC TGA CTC CGT CTC CGG GGG  
 C W R E G P G T D Q T E A E A P>

440                      450                      460                      470                      480  
 \*                      \*                      \*                      \*                      \*  
 GCA GCT GTC CCA CCA CCA CAG GGT GGG CCC CCA GGG CCA TTC TTG GCA  
 CGT CGA CAG GGT GGT GGT GTC CCA CCC GGG GGT CCC GGT AAG AAC CGT  
 A A V P P P Q G G P P G P F L A>

490                      500                      510                      520  
 \*                      \*                      \*                      \*  
 CAC ACA CAT GCT GGA CTC CAA GCC CCA GGC CCC CTC CCT GCC CCA GCT  
 GTG TGT GTA CGA CCT GAG GTT CGG GGT CCG GGG GAG GGA CGG GGT CGA  
 H T H A G L Q A P G P L P A P A>

530                      540                      550                      560                      570  
 \*                      \*                      \*                      \*                      \*  
 GGT GAC AAG GGG GAC CTC CTG CTC CAG GCA GTG CAA CAG AGC TGC CTG  
 CCA CTG TTC CCC CTG GAG GAC GAG GTC CGT CAC GTT GTC TCG ACG GAC  
 G D K G D L L L Q A V Q Q S C L>

580                      590                      600                      610                      620  
 \*                      \*                      \*                      \*                      \*  
 GCA GAC CAT CTG CTG ACA GCG TCA TGG GGG GCA GAT CCA GTC CCA ACC  
 CGT CTG GTA GAC GAC TGT CGC AGT ACC CCC CGT CTA GGT CAG GGT TGG  
 A D H L L T A S W G A D P V P T>

630                      640                      650                      660                      670  
 \*                      \*                      \*                      \*                      \*  
 AAG GCT CCT GGA GAG GGA CAA GAA GGG CTT CCC CTG ACT GGG GCC TGT  
 TTC CGA GGA CCT CTC CCT GTT CTT CCC GAA GGG GAC TGA CCC CGG ACA  
 K A P G E G Q E G L P L T G A C>

680                      690                      700                      710                      720  
 \*                      \*                      \*                      \*                      \*  
 GCT GGA GGC CCA GGG CTC CCT GCT GGG GAG CTG TAC GGG TGG GCA GTA  
 CGA CCT CCG GGT CCC GAG GGA CGA CCC CTC GAC ATG CCC ACC CGT CAT  
 A G G P G L P A G E L Y G W A V>

730                      740                      750                      760  
 \*                      \*                      \*                      \*  
 GAG ACG ACC CCC AGC CCC GGG CCC CAG CCC GCG GCA CTA ACG ACA GGC  
 CTC TGC TGG GGG TCG GGG CCC GGG GTC GGG CGC CGT GAT TGC TGT CCG  
 E T T P S P G P Q P A A L T T G>

FIG. 12  
CONTINUED

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770      780      790      800      810
*        *        *        *        *
GAG GCC GCG GCC CCA GAG TCC CCG CAC CAG GCA GAG CCG TAC CTG TCA
CTC CGG CGC CGG GGT CTC AGG GGC GTG GTC CGT CTC GGC ATG GAC AGT
E  A  A  A  P  E  S  P  H  Q  A  E  P  Y  L  S>

820      830      840      850      860
*        *        *        *        *
CCC TCC CCA AGC GCC TGC ACC GCG GTG CAA GAG CCC AGC CCA GGG GCG
GGG AGG GGT TCG CGG ACG TGG CGC CAC GTT CTC GGG TCG GGT CCC CGC
P  S  P  S  A  C  T  A  V  Q  E  P  S  P  G  A>

870      880      890      900      910
*        *        *        *        *
CTG GAC GTG ACC ATC ATG TAC AAG GGC CGC ACG GTG CTG CAG AAG GTG
GAC CTG CAC TGG TAG TAC ATG TTC CCG GCG TGC CAC GAC GTC TTC CAC
L  D  V  T  I  M  Y  K  G  R  T  V  L  Q  K  V>

920      930      940      950      960
*        *        *        *        *
GTG GGA CAC CCG AGC TGC ACG TTC CTA TAC GGC CCC CCA GAC CCA GCT
CAC CCT GTG GGC TCG ACG TGC AAG GAT ATG CCG GGG GGT CTG GGT CGA
V  G  H  P  S  C  T  F  L  Y  G  P  P  D  P  A>

970      980      990      1000
*        *        *        *
GTC CGG GCC ACA GAC CCC CAG CAG GTA GCA TTC CCC AGC CCT GCC GAG
CAG GCC CGG TGT CTG GGG GTC GTC CAT CGT AAG GGG TCG GGA CGG CTC
V  R  A  T  D  P  Q  Q  V  A  F  P  S  P  A  E>

1010      1020      1030      1040      1050
*        *        *        *        *
CTC CCG GAC CAG AAG CAG CTG CGC TAC ACG GAG GAA CTG CTG CGG CAC
GAG GGC CTG GTC TTC GTC GAC GCG ATG TGC CTC CTT GAC GAC GCC GTG
L  P  D  Q  K  Q  L  R  Y  T  E  E  L  L  R  H>

1060      1070      1080      1090      1100
*        *        *        *        *
GTG GCC CCT GGG TTG CAC CTG GAG CTT CGG GGG CCA CAG CTG TGG GCC
CAC CGG GGA CCC AAC GTG GAC CTC GAA GCC CCC GGT GTC GAC ACC CGG
V  A  P  G  L  H  L  E  L  R  G  P  Q  L  W  A>

1110      1120      1130      1140      1150
*        *        *        *        *
CGG CGC ATG GGC AAG TGC AAG GTG TAC TGG GAG GTG GGC GGA CCC CCA
GCC GCG TAC CCG TTC ACG TTC CAC ATG ACC CTC CAC CCG CCT GGG GGT
R  R  M  G  K  C  K  V  Y  W  E  V  G  G  P  P>

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FIG. 12  
CONTINUED

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1160				1170				1180				1190				1200	
*				*				*				*				*	
GGC	TCC	GCC	AGC	CCC	TCC	ACC	CCA	GCC	TGC	CTG	CTG	CCT	CGG	AAC	TGT		
CCG	AGG	CGG	TCG	GGG	AGG	TGG	GGT	CGG	ACG	GAC	GAC	GGA	GCC	TTG	ACA		
G	S	A	S	P	S	T	P	A	C	L	L	P	R	N	C>		
1210				1220				1230				1240					
*				*				*				*					
GAC	ACC	CCC	ATC	TTC	GAC	TTC	AGA	GTC	TTC	TTC	CAA	GAG	CTG	GTG	GAA		
CTG	TGG	GGG	TAG	AAG	CTG	AAG	TCT	CAG	AAG	AAG	GTT	CTC	GAC	CAC	CTT		
D	T	P	I	F	D	F	R	V	F	F	Q	E	L	V	E>		
1250				1260				1270				1280				1290	
*				*				*				*				*	
TTC	CGG	GCA	CGG	CAG	CGC	CGT	GGC	TCC	CCA	CGC	TAT	ACC	ATC	TAC	CTG		
AAG	GCC	CGT	GCC	GTC	GCG	GCA	CCG	AGG	GGT	GCG	ATA	TGG	TAG	ATG	GAC		
F	R	A	R	Q	R	R	G	S	P	R	Y	T	I	Y	L>		
1300				1310				1320				1330				1340	
*				*				*				*				*	
GGC	TTC	GGG	CAG	GAC	CTG	TCA	GCT	GGG	AGG	CCC	AAG	GAG	AAG	AGC	CTG		
CCG	AAG	CCC	GTC	CTG	GAC	AGT	CGA	CCC	TCC	GGG	TTC	CTC	TTC	TCG	GAC		
G	F	G	Q	D	L	S	A	G	R	P	K	E	K	S	L>		
1350				1360				1370				1380				1390	
*				*				*				*				*	
GTC	CTG	GTG	AAG	CTG	GAA	CCC	TGG	CTG	TGC	CGA	GTG	CAC	CTA	GAG	GGC		
CAG	GAC	CAC	TTC	GAC	CTT	GGG	ACC	GAC	ACG	GCT	CAC	GTG	GAT	CTC	CCG		
V	L	V	K	L	E	P	W	L	C	R	V	H	L	E	G>		
1400				1410				1420				1430				1440	
*				*				*				*				*	
ACG	CAG	CGT	GAG	GGT	GTG	TCT	TCC	CTG	GAT	AGC	AGC	GAC	CTC	GAC	CTC		
TGC	GTC	GCA	CTC	CCA	CAC	AGA	AGG	GAC	CTA	TCG	TCG	CTG	GAG	CTG	GAG		
T	Q	R	E	G	V	S	S	L	D	S	S	D	L	D	L>		
1450				1460				1470				1480					
*				*				*				*					
TGC	CTG	TCC	AGC	GCC	AAC	AGC	CTC	TAT	GAC	GAC	ATC	GAG	TGC	TTC	CTT		
ACG	GAC	AGG	TCG	CGG	TTG	TCG	GAG	ATA	CTG	CTG	TAG	CTC	ACG	AAG	GAA		
C	L	S	S	A	N	S	L	Y	D	D	I	E	C	F	L>		
1490				1500				1510									
*				*				*									
ATG	GAG	CTG	GAG	CAG	CCC	GCC	TAG										
TAC	CTC	GAC	CTC	GTC	GGG	CGG	ATC										
M	E	L	E	O	P	A>											

FIG. 12  
CONTINUED



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10                      20                      30                      40  
 \*                      \*                      \*                      \*  
 ATG GCC TTG GCT CCT GAG AGG GCA GCC CCA CGC GTG CTG TTC GGA GAG  
 TAC CGG AAC CGA GGA CTC TCC CGT CGG GGT GCG CAC GAC AAG CCT CTC  
 M    A    L    A    P    E    R    A    A    P    R    V    L    F    G    E>  
  
 50                      60                      70                      80                      90  
 \*                      \*                      \*                      \*                      \*  
 TGG CTC CTT GGA GAG ATC AGC AGC GGC TGC TAT GAG GGG CTG CAG TGG  
 ACC GAG GAA CCT CTC TAG TCG TCG CCG ACG ATA CTC CCC GAC GTC ACC  
 W    L    L    G    E    I    S    S    G    C    Y    E    G    L    Q    W>  
  
 100                      110                      120                      130                      140  
 \*                      \*                      \*                      \*                      \*  
 CTG GAC GAG GCC CGC ACC TGT TTC CGC GTG CCC TGG AAG CAC TTC GCG  
 GAC CTG CTC CGG GCG TGG ACA AAG GCG CAC GGG ACC TTC GTG AAG CGC  
 L    D    E    A    R    T    C    F    R    V    P    W    K    H    F    A>  
  
 150                      160                      170                      180                      190  
 \*                      \*                      \*                      \*                      \*  
 CGC AAG GAC CTG AGC GAG GCC GAC GCG CGC ATC TTC AAG GCC TGG GCT  
 GCG TTC CTG GAC TCG CTC CGG CTG CGC GCG TAG AAG TTC CGG ACC CGA  
 R    K    D    L    S    E    A    D    A    R    I    F    K    A    W    A>  
  
 200                      210                      220                      230                      240  
 \*                      \*                      \*                      \*                      \*  
 GTG GCC CGC GGC AGG TGG CCG CCT AGC AGC AGG GGA GGT GGC CCG CCC  
 CAC CGG GCG CCG TCC ACC GGC GGA TCG TCG TCC CCT CCA CCG GGC GGG  
 V    A    R    G    R    W    P    P    S    S    R    G    G    G    P    P>  
  
 250                      260                      270                      280  
 \*                      \*                      \*                      \*  
 CCC GAG GCT GAG ACT GCG GAG CGC GCC GGC TGG AAA ACC AAC TTC CGC  
 GGG CTC CGA CTC TGA CGC CTC GCG CGG CCG ACC TTT TGG TTG AAG GCG  
 P    E    A    E    T    A    E    R    A    G    W    K    T    N    F    R>  
  
 290                      300                      310                      320                      330  
 \*                      \*                      \*                      \*                      \*  
 TGC GCA CTG CGC AGC ACG CGT CGC TTC GTG ATG CTG CGG GAT AAC TCG  
 ACG CGT GAC GCG TCG TGC GCA GCG AAG CAC TAC GAC GCC CTA TTG AGC  
 C    A    L    R    S    T    R    R    F    V    M    L    R    D    N    S>

FIG. 13

T 0 4 2 5 0 : 5 9 6 4 7 9 6 5

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340                      350                      360                      370                      380  
\*                      \*                      \*                      \*                      \*  
GGG GAC CCG GCC GAC CCG CAC AAG GTG TAC GCG CTC AGC CGG GAG CTG  
CCC CTG GGC CGG CTG GGC GTG TTC CAC ATG CGC GAG TCG GCC CTC GAC  
G D P A D P H K V Y A L S R E L>

390                      400                      410                      420                      430  
\*                      \*                      \*                      \*                      \*  
TGC TGG CGA GAA GGC CCA GGC ACG GAC CAG ACT GAG GCA GAG GCC CCC  
ACG ACC GCT CTT CCG GGT CCG TGC CTG GTC TGA CTC CGT CTC CGG GGG  
C W R E G P G T D Q T E A E A P>

440                      450                      460                      470                      480  
\*                      \*                      \*                      \*                      \*  
GCA GCT GTC CCA CCA CCA CAG GGT GGG CCC CCA GGG CCA TTC TTG GCA  
CGT CGA CAG GGT GGT GGT GTC CCA CCC GGG GGT CCC GGT AAG AAC CGT  
A A V P P P Q G G P P G P F L A>

490                      500                      510                      520  
\*                      \*                      \*                      \*  
CAC ACA CAT GCT GGA CTC CAA GCC CCA GGC CCC CTC CCT GCC CCA GCT  
GTG TGT GTA CGA CCT GAG GTT CGG GGT CCG GGG GAG GGA CGG GGT CGA  
H T H A G L Q A P G P L P A P A>

530                      540                      550                      560                      570  
\*                      \*                      \*                      \*                      \*  
GGT GAC AAG GGG GAC CTC CTG CTC CAG GCA GTG CAA CAG AGC TGC CTG  
CCA CTG TTC CCC CTG GAG GAC GAG GTC CGT CAC GTT GTC TCG ACG GAC  
G D K G D L L L Q A V Q Q S C L>

580                      590                      600                      610                      620  
\*                      \*                      \*                      \*                      \*  
GCA GAC CAT CTG CTG ACA GCG TCA TGG GGG GCA GAT CCA GTC CCA ACC  
CGT CTG GTA GAC GAC TGT CGC AGT ACC CCC CGT CTA GGT CAG GGT TGG  
A D H L L T A S W G A D P V P T>

630                      640                      650                      660                      670  
\*                      \*                      \*                      \*                      \*  
AAG GCT CCT GGA GAG GGA CAA GAA GGG CTT CCC CTG ACT GGG GCC TGT  
TTC CGA GGA CCT CTC CCT GTT CTT CCC GAA GGG GAC TGA CCC CGG ACA  
K A P G E G Q E G L P L T G A C>

680                      690                      700                      710                      720  
\*                      \*                      \*                      \*                      \*  
GCT GGA GGC CCA GGG CTC CCT GCT GGG GAG CTG TAC GGG TGG GCA GTA  
CGA CCT CCG GGT CCC GAG GGA CGA CCC CTC GAC ATG CCC ACC CGT CAT  
A G G P G L P A G E L Y G W A V>

FIG. 13  
CONTINUED

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730                      740                      750                      760  
 \*                      \*                      \*                      \*  
 GAG ACG ACC CCC AGC CCC ACT TCT GAT ACC CAG GAA GAC ATT CTG GAT  
 CTC TGC TGG GGG TCG GGG TGA AGA CTA TGG GTC CTT CTG TAA GAC CTA  
 E T T P S P T S D T Q E D I L D>

770                      780                      790                      800                      810  
 \*                      \*                      \*                      \*                      \*  
 GAG TTA CTG GGT AAC ATG GTG TTG GCC CCA CTC CCA GAT CCG GGA CCC  
 CTC AAT GAC CCA TTG TAC CAC AAC CGG GGT GAG GGT CTA GGC CCT GGG  
 E L L G N M V L A P L P D P G P>

820                      830                      840                      850                      860  
 \*                      \*                      \*                      \*                      \*  
 CCA AGC CTG GCT GTA GCC CCT GAG CCC TGC CCT CAG CCC CTG CGG AGC  
 GGT TCG GAC CGA CAT CGG GGA CTC GGG ACG GGA GTC GGG GAC GCC TCG  
 P S L A V A P E P C P Q P L R S>

870                      880                      890                      900                      910  
 \*                      \*                      \*                      \*                      \*  
 CCC AGC TTG GAC AAT CCC ACT CCC TTC CCA AAC CTG GGG CCC TCT GAG  
 GGG TCG AAC CTG TTA GGG TGA GGG AAG GGT TTG GAC CCC GGG AGA CTC  
 P S L D N P T P F P N L G P S E>

920                      930                      940                      950                      960  
 \*                      \*                      \*                      \*                      \*  
 AAC CCA CTG AAG CGG CTG TTG GTG CCG GGG GAA GAG TGG GAG TTC GAG  
 TTG GGT GAC TTC GCC GAC AAC CAC GGC CCC CTT CTC ACC CTC AAG CTC  
 N P L K R L L V P G E E W E F E>

970                      980                      990                      1000  
 \*                      \*                      \*                      \*  
 GTG ACA GCC TTC TAC CGG GGC CGC CAA GTC TTC CAG CAG ACC ATC TCC  
 CAC TGT CGG AAG ATG GCC CCG GCG GTT CAG AAG GTC GTC TGG TAG AGG  
 V T A F Y R G R Q V F Q Q T I S>

1010                      1020                      1030                      1040                      1050  
 \*                      \*                      \*                      \*                      \*  
 TGC CCG GAG GGC CTG CGG CTG GTG GGG TCC GAA GTG GGA GAC AGG ACG  
 ACG GGC CTC CCG GAC GCC GAC CAC CCC AGG CTT CAC CCT CTG TCC TGC  
 C P E G L R L V G S E V G D R T>

1060                      1070                      1080                      1090                      1100  
 \*                      \*                      \*                      \*                      \*  
 CTG CCT GGA TGG CCA GTC ACA CTG CCA GAC CCT GGC ATG TCC CTG ACA  
 GAC GGA CCT ACC GGT CAG TGT GAC GGT CTG GGA CCG TAC AGG GAC TGT  
 L P G W P V T L P D P G M S L T>

FIG. 13  
CONTINUED

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1110                      1120                      1130                      1140                      1150  
\*                      \*                      \*                      \*                      \*  
GAC AGG GGA GTG ATG AGC TAC GTG AGG CAT GTG CTG AGC TGC CTG GGT  
CTG TCC CCT CAC TAC TCG ATG CAC TCC GTA CAC GAC TCG ACG GAC CCA  
D R G V M S Y V R H V L S C L G>

1160                      1170                      1180                      1190                      1200  
\*                      \*                      \*                      \*                      \*  
GGG GGA CTG GCT CTC TGG CGG GCC GGG CAG TGG CTC TGG GCC CAG CGG  
CCC CCT GAC CGA GAG ACC GCC CGG CCC GTC ACC GAG ACC CGG GTC GCC  
G G L A L W R A G Q W L W A Q R>

1210                      1220                      1230                      1240  
\*                      \*                      \*                      \*  
CTG GGG CAC TGC CAC ACA TAC TGG GCA GTG AGC GAG GAG CTG CTC CCC  
GAC CCC GTG ACG GTG TGT ATG ACC CGT CAC TCG CTC CTC GAC GAG GGG  
L G H C H T Y W A V S E E L L P>

1250                      1260                      1270                      1280                      1290  
\*                      \*                      \*                      \*                      \*  
AAC AGC GGG CAT GGG CCT GAT GGC GAG GTC CCC AAG GAC AAG GAA GGA  
TTG TCG CCC GTA CCC GGA CTA CCG CTC CAG GGG TTC CTG TTC CTT CCT  
N S G H G P D G E V P K D K E G>

1300                      1310                      1320                      1330                      1340  
\*                      \*                      \*                      \*                      \*  
GGC GTG TTT GAC CTG GGG CCC TTC ATT GTA GAT CTG ATT ACC TTC ACG  
CCG CAC AAA CTG GAC CCC GGG AAG TAA CAT CTA GAC TAA TGG AAG TGC  
G V F D L G P F I V D L I T F T>

1350                      1360                      1370                      1380                      1390  
\*                      \*                      \*                      \*                      \*  
GAA GGA AGC GGA CGC TCA CCA CGC TAT GCC CTC TGG TTC TGT GTG GGG  
CTT CCT TCG CCT GCG AGT GGT GCG ATA CGG GAG ACC AAG ACA CAC CCC  
E G S G R S P R Y A L W F C V G>

1400                      1410                      1420                      1430                      1440  
\*                      \*                      \*                      \*                      \*  
GAG TCA TGG CCC CAG GAC CAG CCG TGG ACC AAG AGG CTC GTG ATG GTC  
CTC AGT ACC GGG GTC CTG GTC GGC ACC TGG TTC TCC GAG CAC TAC CAG  
E S W P Q D Q P W T K R L V M V>

1450                      1460                      1470                      1480  
\*                      \*                      \*                      \*  
AAG GTT GTG CCC ACG TGC CTC AGG GCC TTG GTA GAA ATG GCC CGG GTA  
TTC CAA CAC GGG TGC ACG GAG TCC CGG AAC CAT CTT TAC CGG GCC CAT  
K V V P T C L R A L V E M A R V>

1490                      1500                      1510                      1520                      1530  
\*                      \*                      \*                      \*                      \*  
GGG GGT GCC TCC TCC CTG GAG AAT ACT GTG GAC CTG CAC ATT GAC AAC  
CCC CCA CGG AGG AGG GAC CTC TTA TGA CAC CTG GAC GTG TAA CTG TTG  
G G A S S L E N T V D L H I D N>

FIG. 13  
CONTINUED

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1540		1550		1560		1570		1580
*		*		*		*		*
GAC CAC CCA CTC	GAC CTC	GAC GAC GAC CAG	TAC AAG GCC	TAC CTG CAG				
CTG GTG GGT GAG	CTG GAG CTG CTG CTG	GTC ATG TTC	CGG ATG GAC	GTC				
D H P L	D L D D D	Q Y K A	Y L	Q>				
1590		1600		1610		1620		
*		*		*		*		
GAC TTG GTG GAG	GGC ATG GAT TTC	CAG GGC CCT	GGG GAG AGC	TGA				
CTG AAC CAC CTC	CCG TAC CTA AAG	GTC CCG GGA CCC	CTC TCG	ACT				
D L V E G	M D F Q G	P G E	S>					

FIG. 13  
CONTINUED

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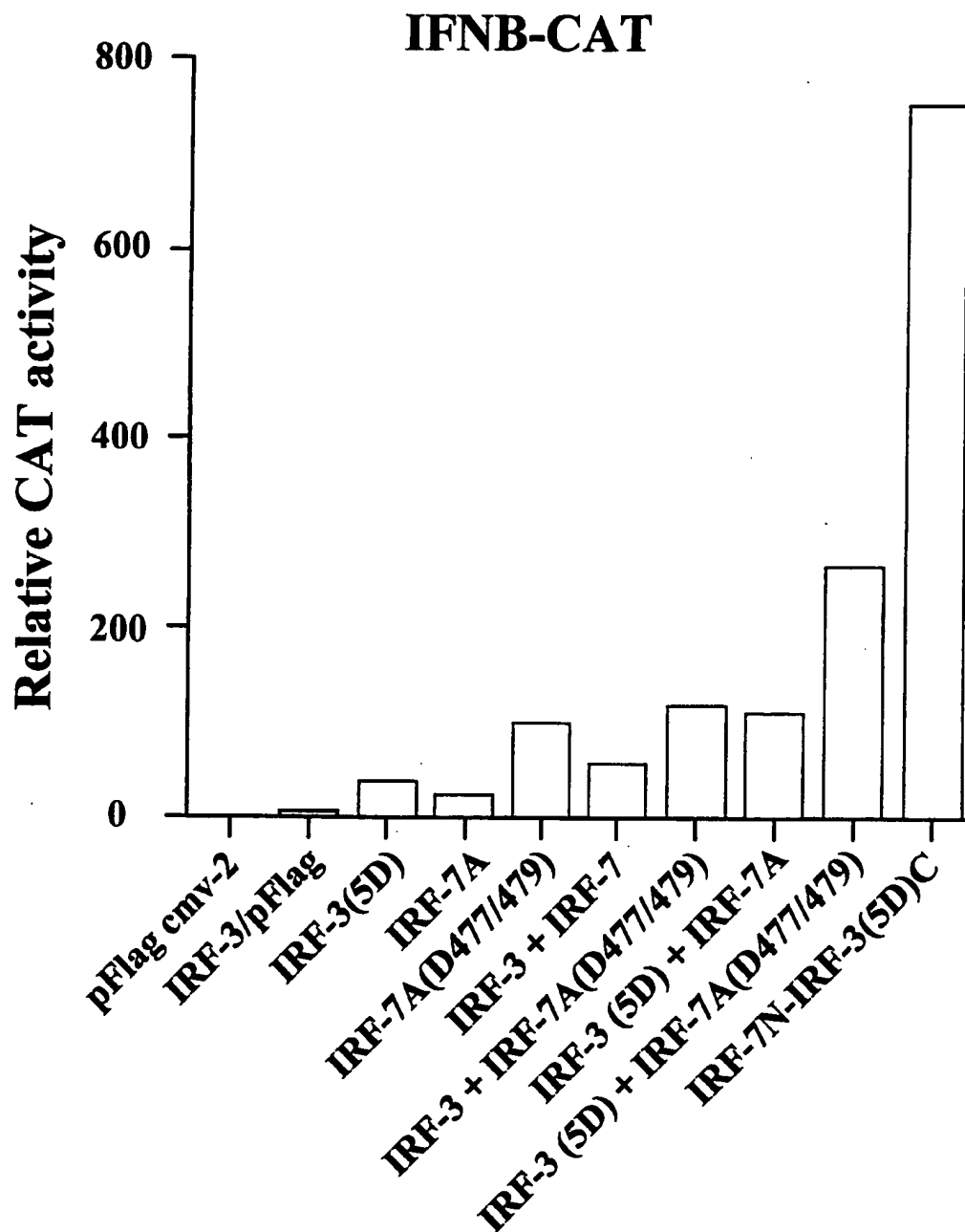


FIG. 14